

1. A method comprising
receiving relocation information indicative of an intended change in position
of a target location on a Bezier shape, the contour of the Bezier shape being governed by
control points, and

in response to the relocation information, determining new positions for
canonical locations on the shape based on predefined intended behaviors of the canonical
locations.

2. The method of claim 1 in which the shape comprises a d-degree Bezier curve
governed by d+1 control points.

3. The method of claim 2 in which there are d+1 canonical locations.

4. The method of claim 1 further comprising
adjusting the control points so that the Bezier shape contains the canonical locations
in their new positions.

5. The method of claim 1 in which the Bezier shape comprises a curve or a
surface.

6. The method of claim 1 further comprising rendering the Bezier shape based
on the new positions of the d+1 canonical locations.

7. The method of claim 1 in which the target location in its changed position lies
on the rendered Bezier shape.

8. The method of claim 1 in which the predefined intended behavior is expressed
in response functions that define the relationship between changes in positions of target
locations and changes in positions of canonical locations.

9. The method of claim 3 in which the d+1 canonical locations define d sections
in order along the shape from one end to the other end, and the predefined intended behavior
comprises the following:

when the target location is in the first section, the one end is relocated, and the other
end is constrained to its original location, and

6 when the target location is in the dth section, the other end is relocated and the one
7 end is constrained to its original location.

1 10. The method of claim 1 in which the Bezier shape comprises a d-degree curve,
2 the one end and the other end comprise end points of the curve, and the target location
3 comprises a point along the curve.

1 11. The method of claim 1 in which the Bezier shape comprises a 3-degree curve
2 and there are four canonical locations.

1 12. The method of claim 1 in which the Bezier shape comprises a 2-degree curve
2 and there are three canonical locations.

1 13. The method of claim 1 in which the control points are adjusted using a pre-
2 computed basis coefficient matrix.

1 14. The method of claim 1 in which the Bezier shape comprises a surface and in
2 which the position of the target location is determined by forming a mesh on the surface and
3 searching quadrilaterals of the mesh.

4 15. The method of claim 11 further comprising processing the relocation
5 information as a series of curve relocations.

6 16. A medium storing machine readable instructions arranged to cause a machine
7 to
8 receive relocation information indicative of an intended change in position of a target
9 location on a Bezier shape, the contour of the Bezier shape being governed by control points,
and

in response to the relocation information, determine new positions for canonical
locations on the shape based on predefined intended behaviors of the canonical locations.

1 17. A method comprising
2 receiving relocation information indicative of an intended change in position of a
3 target location on a Bezier shape, the contour of the Bezier shape being governed by control
4 points,

5 in response to the relocation information, determining new positions for canonical
6 locations on the shape based on predefined intended behaviors of the canonical locations, the
7 predefined intended behaviors being expressed in scaled response functions that define the
8 relationship between changes in positions of target locations and changes in positions of
9 canonical positions,

adjusting the control points so that the Bezier shape contains the canonical locations in their new positions, and

rendering the Bezier shape based on the new positions of the canonical locations so that the target location in its changed position lies on the rendered Bezier shape.

18. A method comprising
enabling a user to drag a user interface element displayed in association with a Bezier shape to indicate an intended predefined distortion of the Bezier shape, the contour of the Bezier shape being governed by control points, and
in response to the dragging, effecting the intended predefined distortion by setting new positions for the control points.

19. The method of claim 18 in which the intended predefined distortion is effected by modifying a surface equation to effect the setting of new positions of the control points.

20. The method of claim 18 in which the distortion is symmetric.

21. The method of claim 18 in which the distortion is wave-like.

22. The method of claim 18 in which the user interface element comprises a handle that is constrained to move in a single direction during dragging.

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